

# MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES



The Division of Nutritional Health and Services

## *Nutrition in Focus*

### Preconception and Gestation

Preconception is the period before conception occurs. Gestation is the period after conception when the fetus is developing. Good nutrition is essential to prepare the woman's body to withstand the rigors of pregnancy and helps assure that the mother will continue to be healthy after delivery. Good nutrition is also essential to help assure that the father is in the best possible health at the time conception occurs. Healthy eating behaviors before conception and during pregnancy contribute to appropriate fetal development at each stage of gestation, resulting in a healthy baby.

#### *What are the consequences of poor nutrition?*

- ⇒ Crash dieting and eating disorders can interfere with the menstrual cycle and reduce fertility.
- ⇒ Inadequate intake of folic acid before conception is linked to the development of birth defects such as spina bifida and other neural tube defects.
- ⇒ Inadequate intake of calcium by the mother results in calcium being taken from the mother's bones to supply the baby, increasing the risk of osteoporosis in the mother.
- ⇒ Poor dietary habits during gestation compromise the health of the mother and the infant. Poor nutrition during pregnancy increases the risk of a low birthweight baby. Inadequate iron consumption by a pregnant woman increases the risk of anemia for both the mother and the infant. Anemia and low birthweight are risk factors for infant mortality. In addition, anemia has been linked to maternal mortality.

#### *What are we doing?*

- ⇒ Assuring access to supplemental foods, nutrition counseling, and education to pregnant women enrolled in WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children).  
*(Assurance)*

- ⇒ Referring WIC-enrolled women to prenatal care, disseminating information to individuals and physicians about the importance of folic acid in the diets of preconceptional women. *(Assurance)*
- ⇒ Collecting and analyzing data on the health status of pregnant women and infants enrolled in WIC. Annual reports are issued from the Pregnancy Nutrition Surveillance System (PNSS) and the Pediatric Nutrition Surveillance System (PedNSS). *(Assessment)*
- ⇒ Designing a population-based monitoring and surveillance system that will assess the nutritional health status of all Missourians, regardless of age or income level. *(Assessment)*

## *How are we doing?*

- ⇒ The infant mortality rate in Missouri is 7.2% (2000), similar to the national rate. There were 547 infant deaths in Missouri in 2000.
- ⇒ Statewide WIC participation represents 80.2% of the eligible pregnant women. However, the participation rates in individual counties range from approximately 60% to 96%.
- ⇒ Early prenatal care rates among WIC enrolled women are 82.3% (1998 PNSS); statewide they are 84.6% (1998 MICA); the national average among WIC enrolled women was 75.6% (1998 PNSS).

## *What more can we do?*

- ⇒ Assure access to early and regular OB/GYN and prenatal care.
- ⇒ Inform families, friends, and patients about the need for preconceptional women to consume 400 micrograms (µg) of folic acid daily, either from vitamin supplements or natural dietary sources.<sup>1</sup>
- ⇒ Promote healthful eating through nutrition education and health promotion strategies aimed at the environment, the community, the family, and the individual.

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<sup>1</sup> The American Academy of Pediatrics says that although some foods are fortified with folic acid, it is not possible for women to meet the 400-microgram requirement through a typical daily diet. Therefore, their policy recommends daily consumption of a multivitamin containing 400 micrograms of this vitamin. Meeting this dietary requirement could prevent 50 percent or more of these birth defects. In addition, the AAP recommends that women who have had a previous NTD-affected pregnancy be offered treatment with 4,000 micrograms of folic acid per day starting one month before becoming pregnant and throughout the first trimester, unless inadvisable for medical reasons. Women should not attempt to achieve this dosage by taking multivitamin supplements because of the potential risk of harm caused by high levels of other vitamins.